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SCHIFF HARDIN & WAITE
Patent Department
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Chicago, IL 60606-6473

EXAMINER

VIG, NARESH

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,619

Applicant(s)

POST ET AL.

Examiner

Naresh Vig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to the reply received by the office on 02 October 2003 to the office action mailed on 08 July 2003. Amendment to claims 1 and 3 is acknowledged. There are 8 claims, claims 1, 3 – 9 pending for examination.

Response to Arguments

In response to applicant's argument that in the cited references, an element allegedly corresponding to the "first function unit" or an element corresponding to the "second function unit". In the cited reference the postage meter is being secured (first function unit) by a security device (second function unit).

In response to applicant's argument that HNS there is no no teaching in that reference to employ a security module containing a non-volatile memory, as explicitly required in claim 1. Examiner has worked for HNS at the time invention was made, and supported HNS Radiant and Strategy product line. HNS Radiant and Strategy products were commercially available at the time invention was made. HNS IX used flash memory on each module to security information like user-id and password of remote system to download functional code from, user-id and password to restrict remote users

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to access information on the module, store operational code and configuration information etc. In this case non-volatile memory is used to store design choice data (e.g. source code in case of HNS) in the security module (e.g. module for IX in case of HNS).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Windel et al. US Patent 5,805,711 hereinafter known as Windel in view of Pauschinger US Patent 6,456,987, and further in view of Strategy and IX products from Hughes Network Systems hereinafter known as HNS.

Regarding claim 1, Windel discloses a method for securing data and program code of an electronic postage meter machine against manipulation, having a microprocessor in a control unit of the postage meter machine. Windel discloses implementing steps for a start and initialization routine and following system routine with a possibility of entering into a communication mode with a remote data central, as well

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as further input steps in order to enter into a franking mode from which a branch is made back into the system routine after the implementation of an accounting and printing routine, includes conducting a start security check within the framework of a start and initialization routine which runs before a secure printing data call routine and the following system routine for determining the validity of a program code and/or of data in the predetermined memory location and of an appertaining MAC (message authentication code) [abstract].

Windel discloses that a known postage meter machine is equipped with at least one input means, one output means, an input/output control module, a memory means that carries a program, data and, in particular, the accounting register, a control means (security relevant data) and a printer module. Measures must also be undertaken given a printer module having a mechanical printing arrangement to insure that the printing mechanism cannot be misused for unbilled impressions when it is switched off [col. 1, lines 39 – 47]. On the other hand, the memory means comprises at least one non-volatile memory module. [col. 2, lines 5 – 6].

Windel discloses that when the reloading cannot be undertaken, the data central station prevents further operation of the postage meter machine with a signal communicated to the postage meter machine [col. 26, lines 46 – 59]. Alternatively, Pauschinger discloses that the CPU 263 (first function unit) can generate an interrupt signal and supply it as an output to the security arrangement 6 [col. 16, lines 25 – 33].

Windell discloses that U.S. Pat. No. 4,812,965 discloses sensors within the postage meter machine are intended to detect any falsification action that has been

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undertaken so that a flag can be set (desired task to be performed by a function unit) in appertaining memories in the event that operations were performed on the postage meter machine for manipulative purposes [col. 3, lines 33 – 44].

Windel discloses to activate the device after the security check is performed [Fig. 3, Fig. 4]. Windel does not disclose what information is stored in non-volatile family. Official notice it taken that it is a design choice to decide what information should be stored in the non-volatile memory. For example, Hughes Network Systems (HNS) manufactured and stored Strategy data switching products (commercially available at the time of the invention), which used non-volatile memory to store the source of software code loading information for the switching modules. In addition to the central server for storing software code and configuration information, HNS Strategy product included as module called MASP which had a local disk to store software code and configuration to load and restore configuration (re-initialize) modules. HNS had introduced IX (part of HNS Radiant Product Line) which used removable Flash Memory (non-volatile memory) on the on each module (device motherboard) to store software code and configuration, security information of remote servers to download operational code, restrict access to remote users who have the security information to check the information contained in the module. Flash memory enabled each module to become operational in less time (software code and configuration loading from local non-volatile memory). In addition, IX product had security information stored in flash memory to secure the access for configuration and making changes to the modules. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

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made to modify Windel and use non-volatile use non-volatile memory to make the product function independently, recover from rebooting without intervention from remote location etc.

Windel does not disclose monitoring proper insertion security module.

Pauschinger discloses to determine whether the security arrangement 6 that is allocated to the particular user program or to the respective mail carrier is present. A further check automatically ensues in step 102 in order to interrogate the connection of the appertaining machine base. The aforementioned checks include a mutual verification of the authorization of at least some of the participating components of the system. If one of the interrogations 101 and 102 indicates an absence of any of those components, the user program is terminated (terminator). Official notice it taken that it is a design choice to elect number of functional units to use for performing desired function, and, function units like processors have the logic programmed to perform a function as desired which is used in the device to perform a particular task (for example, math co-processor, smart security cards used in set-top boxes etc.). For example, a designer may elect to use one function unit for performing plurality of desired functions, or, may elect to use one function unit for performing each function and make the minimize research expenses by using functional unit available in the market. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Windel as taught by Pauchinger and use plurality of function units to design modular products, use modules to design new products faster and minimize product research costs.

Windell does not disclose re-initialization. Pauschinger discloses that in U.S. Pat. No. 5,590,198, a removable meter insert is likewise inserted into a slot of a personal computer. A user password is required for operating the franking system, however, a re-initialization is possible with a super password generated by a data center, i.e. without having to send the meter insert back to the manufacturer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Windel as taught by Pauchinger and include means and method for re-initialization to minimize sending the meter insert (security module) back to the manufacturer.

Regarding claims 4 – 5, Windel discloses that a start security check routine is undertaken, which checks the most important, externally maintained postage meter machine data and external program code completely encapsulated in the internal ROM and RAM area of the OTP with its program code. This security check routine can thereby recognize manipulations--without an external possibility of influencing with manipulative intent thereby existing--that had been implemented during the deactivated condition of the postage meter machine and can then effectively inhibit further operation of the postage meter machine if the check routines are not run error-free. In this case, the program execution remains in an endless program loop in the OTP-ROM (error handing 1030). The external storage media are used by the MP (read EPROM, write RAM) only after the checks have been run error-free and the system routine 200 is reached [col. 12, lines 24 – 40].

Regarding claim 6, Windel discloses that it is known in the art that according to British Specification 22 33 937 and U.S. Pat. No. 5,181,245, the postage meter machine periodically communicates with the data central. A blocking means allows the postage meter machine to be blocked after the expiration of a predetermined time or after a predetermined number of operation cycles and supplies an alarm to the user [col. 6, lines 7 – 21].

Regarding claim 7, Windel discloses that for enabling, an encrypted codeword must be entered from the outside, which is compared to an internally generated, encrypted codeword [col. 6, lines 7 – 21].

Regarding claim 8, Windel discloses that it is known in the art that according to British Specification 22 33 937 and U.S. Pat. No. 5,181,245, the postage meter machine periodically communicates with the data central. A blocking means allows the postage meter machine to be blocked after the expiration of a predetermined time or after a predetermined number of operation cycles and supplies an alarm to the user [col. 6, lines 7 – 21]. It would have been obvious to a person with ordinary skill in the art that

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selected predetermined time is loaded in the device to be able to determine when to deactivate the device after the expiration of selected predetermined time.

Regarding claim 9, Windel discloses that it is known in the art that according to British Specification 22 33 937 and U.S. Pat. No. 5,181,245, the postage meter machine periodically communicates with the data central. A blocking means allows the postage meter machine to be blocked after the expiration of a predetermined time or after a predetermined number of operation cycles and supplies an alarm to the user [col. 6, lines 7 – 21]. It would have been obvious to a person with ordinary skill in the art that selected predetermined time is loaded in the device to be able to determine when to deactivate the device after the expiration of selected predetermined time.

Also, Windel discloses that U.S. Pat. No. 5,243,654 discloses a postage meter machine wherein the ongoing temporal data supplied by a clock/date module are compared to stored data about standstill times. When the standstill time is reached by the running time, the postage meter machine is deactivated, i.e. printing is prevented. When a central data station which reads the accounting data from the incrementing register is contacted, an encoded combination value is communicated to the postage meter machine and a new deadline is set, as a result of which the postage meter machine is again rendered operational [col. 6, lines 22 – 47].

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Windel et al. US Patent 5,805,711 hereinafter known as Windel in view of Pauschinger US Patent 6,456,987, and further in view of Strategy and IX products from Hughes Network Systems hereinafter known as HNS and Emmett et al. US Patent 6,019,281 hereinafter known as Emmett.

Regarding claim 3, Windel in view of Pauchinger does not disclose containing battery. However, Wendel discloses that it is known in the art that batteries are used in postal security housing [col. 2, line 59]. Emmett discloses that Postal Security Devices (PSD) may be implemented as a cartridge that can be inserted into and removed from the host system. This implementation is advantageous because it allows the PSD to be removed and locked in a secure place when not in use and allows the PSD to be used with multiple hosts. Of particular note is a requirement for the PSD enclosure to detect any tampering at the time the tampering occurs and to immediately erase all memory contents that are cryptographically important (but not the descending and ascending registers). This almost certainly implies using long lived battery-powered detection and erasing circuits, including a `self destruct` mode for when battery failure is near. [col. 1, lines 60 – col. 2, line 10]. When the PSD is connected to a host and is active, the circuitry to the right of dashed line 47 is preferably powered from the host, and the PSD display circuitry to the left of dashed line 47 may be powered from the host or from its own power source 45. A user-replaceable primary battery (including, but not limited to,

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lithium and alkaline batteries) or a rechargeable battery (including, but not limited to, NiCd and NiMH batteries) may be used as the power source 45. Another energy storage element (e.g., a capacitor) could also be used as the power source 45 [col. 5, lines 9 – 26]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Windel in view of Pauchinger as taught by Emmett and use alternate power source like a battery to allow the PSD to be removed and locked in a secure place when not in use, minimize loss of stored data, and also to allow maintain data during transportation of PSD to be used with multiple hosts.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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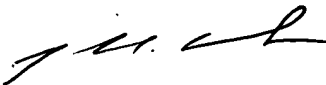
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naresh Vig whose telephone number is 703.305.3372. The examiner can normally be reached on M-F 7:30 - 5:00 (Alt Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 703.308.2702. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

Naresh Vig
December 29, 2003


JOHN G. WEISS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600